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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/743,284

12/23/2003

Joong Seo Park

YHK-0112

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7590

01/25/2005

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EXAMINER

A, MINH D

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

TB

**Office Action Summary**

Application No.

10/743,284

Applicant(s)

PARK, JOONG SEO

Examiner

Minh D A

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/23/03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 12-15 is/are rejected.
- 7) ☒ Claim(s) 4-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**Claim Rejections - 35 USC § 102**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 12-15 are rejected under 35 U.S.C. 102(b) as being unpatentable by Lee et al (US 6,680,581).

Regarding claim 1, Lee discloses an apparatus and method for driving plasma display panel comprising: a first path for charging an inductor (Lc) using energy from a source capacitor (Cs); second path, being separated from the source capacitor (Cs), for supplying energy of the inductor the plasma display panel. See figures 1A, col.2, lines 14-67 to col.3, lines 1-40.

Regarding claim 2, Lee discloses a third path for charging a voltage (Vs) from sustain voltage source into the panel; a fourth path for recovering energy charged the panel to charge the recovered energy, via the inductor (Lc), into the source capacitor (Cs); and a fifth path for charging a voltage from a ground voltage source (Vs02) into the panel. See figure 1A.

Regarding claim 3, Lee discloses wherein the first path includes: a first switching device (S1) connected between a second terminal of the source capacitor (Cs) connected to a ground voltage source (Vs/2) and a first terminal of the inductor (Lc);

and a second switching device (S4) connected between a second terminal of the inductor and the ground voltage source. See figure 1A.

Regarding claim 12, Lee discloses a plasma display panel, comprising the steps of: (A) charging energy from a source capacitor (Cs) into an inductor (Lc) using a first path including the source capacitor (Cs) and the inductor (Lc); and (B) applying energy of the inductor (Lc) the panel using a second path that is separated from the source capacitor (Cs) and includes the inductor (Lc) and the plasma display panel. See figures 1A, col.2, lines 14-67 to col.3, lines 1-40.

Regarding claim 13, Lee discloses a charging a voltage from a sustain voltage source into the panel using a third path including the sustain voltage source (10) and the panel; the recovered energy into the source capacitor (Cs) using a fourth path including the panel, the inductor and the source capacitor; (D) recovering energy charged in the panel to charge the recovered energy into the source capacitor using fourth path including the panel, the inductor and the source capacitor; and (E) charging a voltage from the ground voltage source into the panel using a fifth path including the ground voltage source and the panel. See figures 1A-6, col.2, lines 14-67 to col.3, lines 1-40.

Regarding claim 14, Lee discloses the energy recovering method as claimed wherein said (A) step includes: charging energy from the source capacitor into the inductor through the first path; and shutting off the first path in a state in which energy has been charged the inductor to thereby derive an inverse voltage into the inductor. See figures 1A-6.

Regarding claim 15, Lee discloses the energy recovering method as claimed in claim 14, wherein said (B) step includes: charging said inverse voltage derived into the second path.

### ***Allowable Subject Matter***

3. Claims 4-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach that, wherein the first and second switching devices keep a turned-on state during a period when energy from the source capacitor is charged in the inductor through the first path, and shut off the first path in a state in which energy has been charged in the inductor to thereby derive an inverse voltage into the inductor in recited in dependent claim 4.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Walters et al (US 5,895,986) and Yamashita et al. (US 6,087,776) are cited to show a lighting control system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Minh A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 –2:30 PM).

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and (703) 872-9319 for final communications.

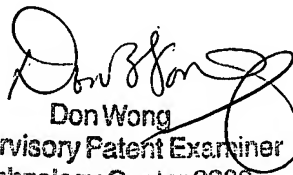
Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (571) 272-1553.

Examiner

Minh A

Art unit 2821

1/22/05

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800